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# Your HOGS

## from weaning to market

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### When to Wean

Pigs are weaned from 5 to 10 weeks of age. The usual weaning age is 6 to 8 weeks. After weaning, pigs may be hand-fed or self-fed.

### Feeds and Feeding

Properly fed pigs are ahead of all other meat producing animals in efficient utilization of feed. They nearly equal the dairy cow in the amount of human food produced from a given amount of feed. A pig's rapid growth and small digestive tract call for a highly concentrated, well balanced ration. Swine are frequently raised in confinement, which increases the importance of providing the following six essentials of a complete ration:

1. Farm grains or other feeds to furnish heat and energy.
2. Protein supplements to furnish tissue building material.

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3. Mineral supplements to build and maintain bones and teeth.
4. Vitamin supplements to keep the animal healthy, thrifty and efficient.
5. A constant supply of clean water.
6. A relatively low fiber content.

Hogs are natural grazers, but green foilage must be moist, high in protein and vitamins and low in fiber.

## Grains and Other Fattening Feeds

Most swine rations consist largely of cereal grains, supplemented with feeds rich in protein, minerals and vitamins. Commonly used grains and their protein content are, in order of importance: Corn, 8 to 9 percent; barley, 12.5 percent, and oats, 12 to 13 percent. This shows grains as a class, to be low in protein, as well as low in minerals and vitamins, though high in energy.

## Protein Supplements

Protein feeds used for swine fall into three groups: Animal byproducts, oil meals and milling byproducts.

1. Animal byproducts -- meat scraps (usually 50-55 percent total crude protein); tankage (55-60 percent); fish meal (50-65 percent); meat and bone scraps (50 percent); blood meal (80 percent), and skimmilk (dried basis, 35 percent).
2. Oil meals -- soybean oil meal (41-44 percent crude protein); linseed meal (37 percent); cottonseed meal (41-43 percent). Use linseed and cottonseed meal only as a small part of the protein supplement.
3. Milling byproducts -- wheat middlings or shorts (17 percent crude protein); wheat bran (16 percent); corn gluten meal (24-27 percent) and distillers dried solubles (25 percent) should form only a small part of the protein ration.

A good quality protein supplement is essential. Quality in this case refers to level and balance of amino acids. It builds swine feeding profit and is especially necessary for dry-lot fed pigs up to 60 or 75 pounds.

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Combinations of the animal and plant proteins usually are very satisfactory swine supplements. Feeding too little, or feeding a poor quality of protein, means wasted grain and slow gains.

## Minerals

In areas deficient in iodine use iodized salt or trace mineral salt for the breeding animals. Requirements for other trace minerals are not well known but it is likely trace mineral salt will supply most of the trace mineral needs. One-half percent trace mineral salt is ample. Supply calcium as pulverized limestone as 1/2 to 1 percent of the ration. Phosphorus is less of a problem since cereal grains and protein supplements are good sources. Inclusion of 1/2 percent bonemeal or its equivalent will help balance the mineral content. A 40-40-20 mixture of bonemeal, limestone and trace mineral salt is a good mineral mixture to feed free choice. Commercial mixtures can be used but do not use high phosphorus beef cattle range minerals in swine rations. Zinc as one of its salts, sulfate, carbonate, or chloride, added at about 50 parts per million usually prevents parakeratosis.

## Vitamins

Most of the vitamin requirements are met when pigs are on pasture. Under drylot conditions the lack of vitamins is often critical. Always add vitamins A and D, either as cod liver oil or in one of the dry forms. About the only natural feeds which have vitamin A actively are yellow corn and alfalfa. These usually can not be depended upon for adequate supplies. The problem with vitamin D is even greater. The only feed containing it in any amount is sun-cured alfalfa, and this feed rarely supplies enough. Swine in a dry lot rarely spend enough time in the sunlight to get adequate vitamin D from that source. Some of the B complex vitamins are often lacking. It is good insurance to add a commercial vitamin supplement to supply these.

## Water

Water is the cheapest nutrient you can supply to your hogs. Keep clean water available at all times. Provide an automatic watering cup for every 20 pigs. The minimum daily water supply for 10 pigs should be 25 gallons in the summer and 15 gallons in the winter. A growing,

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fattening pig will take  $\frac{1}{2}$  to  $1\frac{1}{2}$  gallons of water daily, depending upon its size and the season. During the winter, do not let drinking water fall below 35 to 40 degrees F.

## Shelter and Feeder Space

Minimum shelter area (sleeping space) and feeder space should be:

### SHELTER

AGE	SUMMER	WINTER
Weaning to 75 lbs.	6 sq. ft.	4 sq. ft.
76 to 125 lbs.	8 sq. ft.	6 sq. ft.
126 lbs. to market	10 sq. ft.	8 sq. ft.

### FEEDER SPACE

(Pigs per linear foot-feeder space)

AGE	DRY LOT	PASTURE
Weaning to 75 lbs.	4 ft.	4 to 5
76 lbs. to market	3 ft.	3 to 4 ft.

A sanitary hog wallow is a good piece of hot weather equipment. If shade is nearby, 100 square feet of wallow will handle up to 50 pigs. A fogging nozzle attached to a waterline will cool the pigs without creating a mud problem.

## Sanitation

A strict sanitation program is your best way to prevent round worm infection. When there is doubt as to the effectiveness of the sanitation program, worm pigs soon after weaning. Repeat treatment, if necessary. Effective mange and lice treatment is recommended at weaning and whenever needed thereafter.

## **Pasture**

Clean pasture helps give pigs a good start. It makes an important contribution to their ration by supplying protein, minerals and vitamins. Parasites and infection hazards are less on clean pasture than on old dry lots. One acre of good legume or legume-grass pasture will handle 20 growing fattening pigs on a full feeding program, or 10 to 15 pigs on a limited feeding program. Expect the fastest gains and most efficient use of concentrate on pasture when houses, shades, feeders and waterers are located within 300 feet. Ringing is recommended if rooting becomes a problem. An adequate protein mineral supplement helps to prevent rooting. Soil type may be a rooting factor.

Do not run pigs of widely varying weights together. The weight range should not exceed 20 percent above or below the average. Remove unthrifty pigs from the thrifty and treat separately.

## **Dry Lot Feeding**

Research showing the value of pelleted barley rations has created much interest among swine producers. Pelleted barley rations are equal to or, in some cases, even better than corn. Feeding of barley pellets increases the rate of gain in growing and fattening hogs 12 to 16 percent and increases the feed efficiency up to 20 percent.

The use of pelleted barley for fattening hogs should prove successful in North Dakota for these reasons:

1. North Dakota has an abundant supply of barley.
2. When feeding pellets, a complete ration can be fed from one package. This cuts labor costs.
3. Demand is increasing for good meat-type hogs.
4. Hogs on pelleted feeds eat more and gain weight faster. This permits producers to market hogs earlier, and usually when prices are higher.

Several farrowings a year will use equipment more adequately and enable swine producers to have a year 'round income from their hog enterprise.

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### Gains and Requirements

Normal gains expected of hogs of different weights and the average amount of concentrates required per pound of gain are shown in the following table:

Performance of hogs under good management and recommended levels of protein

	Weight, lbs.	Age, days	Average daily gain, lb.	Feed require- ments per lb. gain	Recom- mended % protein
Suckling pig	up to 35	1 to 56	0.5 - 0.6	---	---
Weanling pig	55 to 75	57 to 96	0.9 - 1.1	2.75 - 3.25	16 - 18*
Growing pig	75 to 125	97 to 126	1.5 - 1.7	3.25 - 3.75	13 - 14*
Fattening pig	125 to mkt.	127 to 176	2.0 - up	3.75 - 5.00	12 - 13*
Breeding swine	---	---	0.75 (min.)	----	14 - 15
Lactating sows	---	---		----	14 - 15

\* When pigs are on pasture the protein can be reduced 2%. These levels are for high quality proteins. For example, barley alone, although 12 percent protein, does not have the balance of essential amino acids to give optimum results.

From: "Profitable Pork Production", Extension Bulletin 299, Michigan State College.

### HOGS EAT MORE FEED TO FATTEN THAN TO GROW

Live Weight in Pounds	Average Daily Gain	Pounds of Feed Per 100-Pound Gain
75 - 124	1.62	334
125 - 174	1.75	380
175 - 224	1.71	412
225 - 274	1.65	446
275 - 324	1.46	504
325 - 374	1.31	554

From: "Swine Management in Ohio", Leaflet L-51, August 1955, Ohio Extension Service.

### Time to Market

Market at 190 to 220 pounds. Hogs that weigh between 190 and 220 pounds return the most profit. These weights usually top daily markets and cost less to produce. Carrying hogs much above 220 pounds increases the cost per pound of gain. A heavier hog that approaches maturity must eat more feed to put on each pound of gain.